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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before the Board of Patent Appeals and Interferences

Applicants	:	Dirk Adolph et al.
Application No.:		10/530,118
Filed	:	April 1, 2005
For	:	METHOD AND APPARATUS FOR SYNCHRONIZING DATA STREAMS CONTAINING AUDIO, VIDEO AND/OR OTHER DATA
Examiner	:	Franklin S. Andramuno
Art Unit	:	2424

APPEAL BRIEF

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

May It Please The Honorable Board:

Applicants appeal from the FINAL Office Action dated August 31, 2009, in which claims 1-7 of the above-identified application stand rejected.

Applicants waive an Oral Hearing for this appeal.

Please charge the $540.00 fee for filing this Brief to Deposit Account No. 07-0832.

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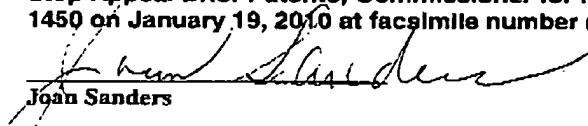
Joan Sanders

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I.   REAL PARTY IN INTEREST

The real party in interest of Application No. 10/530,118 is:

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II.   RELATED APPEALS AND INTERFERENCES

There are no related Appeals or Interferences.

III.   STATUS OF THE CLAIMS

Claims 1 - 7 are pending in this application.

Claims 1 - 7 have been rejected.

The rejection of claims 1 - 7 are appealed.

IV. STATUS OF AMENDMENTS

In response to the FINAL Office Action dated August 31 2009, Applicant's representative filed a Notice of Appeal on November 24, 2009.

This appeal is directed to the claims as they stood at the time of the FINAL Office Action of August 31, 2009, which are shown in the Claims Appendix of this Brief.

V. SUMMARY OF CLAIMED SUBJECT MATTER

There are three independent claims pending in the application: 1, 6 and 7.

Digital Versatile Discs or DVDs are created to target multiple countries and this entails the provisioning of different languages and sub-titles. In additional to the multi language versions there is the possibility of including multi-angle shots and multi-stories. Furthermore these possibilities will be enlarged to provide different video formats such as SDTV and HDTV. In this regard, the authoring of a DVD or optical recording requires that all the different elementary streams (video-angle, audio-track, subtitle etc.) are packetized into a single multiplex transport stream for recording. When played back, a decoder processes the single multiplex transport stream to separate out and decode the packets belonging to the user selected streams. As such, an authored or completed AV multiplex stream, includes all the available components, and precludes any subsequent addition of material, such as additional sound tracks or web-pages. (Applicants' specification, p. 1, ln. 14 to p. 2, ln. 7.)

Applicants' claimed invention addresses this problem and allows subsequent to authoring an additional data stream is to be added in such a way that this new data stream is synchronized with the already existing authored data streams. (Applicants' specification, p. 2, lns. 15-19.)

Applicants' independent claim 1 is directed to a method for arranging MPEG data streams containing video, audio or other data. A basic AV MPEG-2 transport stream has multiplexed elementary streams with descriptors that define the arrangement in time for playing back the parts comprising the MPEG transport stream. Existing in parallel with the basic stream path, but external to it, are multiple sub stream paths of consecutive descriptors. These descriptors point to portions of data streams which are not within the of the multiplexed MPEG transport stream. At least one data stream which originates from an external data source is bound to the basic MPEG-transport stream by pointing at the data stream by descriptors of the corresponding sub stream path. (Applicants' specification, p. 4, lns. 5 - 12 (combining different streams); Applicants' specification, p.

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4, lns. 29 - 35 (play list of movie); and Applicants' specification, p. 10, lns. 32 - 35 (binding).)

Applicants' independent claim 6 is directed to an apparatus for arranging data streams containing video, audio or other data and comprises a means for defining a basic stream path of consecutive descriptors which point to parts of a multiplexed elementary stream forming an MPEG transport stream. The descriptors define the arrangement in time for playing back the parts of the MPEG transport stream. A means defines multiple sub stream paths of consecutive descriptors existing in parallel to said basic stream path. These sub-stream paths of descriptors point to portions of data streams which are not part of the MPEG-transport stream. The sub-stream paths include ones of a video stream path type, an audio stream path type, a subtitle stream path type, and a graphics stream path type. A further means indicates the stream path type of each of the sub-stream paths. A means binds at least one data stream from an external data source to said basic MPEG transport stream by pointing at said data stream by descriptors of the corresponding sub-stream path. (Applicants' specification, p. 4, lns. 5 - 12 (combining external streams); Applicants' specification, p. 7, lns. 1 - 6 (substream type); and Applicants' specification, p. 10, lns. 32 - 35 (binding external sources).)

Finally, Applicants' independent claim 7 is directed to a storage medium containing a basic AV MPEG-2 transport stream of multiplexed elementary streams. The storage medium includes a basic stream path of consecutive descriptors which point to parts of the AV MPEG-2 transport stream. The descriptors define the arrangement in time for playing back the AV MPEG-2 transport stream. In parallel with the basic stream path are multiple sub-stream paths of consecutive descriptors which point to parts of data streams which are located out of the basic AV MPEG-2 transport stream on an external data source. These external data streams represent ones of a video stream path type, an audio stream path type, a subtitle stream path type, a graphics stream path type and an indication of the stream path type of each of the sub-stream paths. (Applicants' specification, p. 4, lns. 5 - 12 (combining external streams); Applicants' specification, p. 7, lns. 1 - 6 (substream type).)

VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

There is one ground of rejection to be reviewed on Appeal.

(1)   Whether claims 1, 6 and 7 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent Application No. 2004/0240856 published December 2, 2004 to Yahata et al. (*Yahata*) in view of U.S. Patent No. 6,778,759 issued August 17, 2004 to Yamada et al. (*Yamada*) and further in view of U.S. Patent 6,341,127 issued January 22, 2002 to Katsube et al. (*Katsube*).

VII.   ARGUMENT

Rejection of Claims 1, 6 and 7 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application No. 2004/0240856 published December 2, 2004 to Yahata et al. (*Yahata*) in view of U.S. Patent No. 6,778,759 issued August 17, 2004 to Yamada et al. (*Yamada*) and further in view of U.S. Patent 6,341,127 issued January 22, 2002 to Katsube et al. (*Katsube*).

CLAIMS 1, 6 and 7

Claims 1, 6 and 7 are patentable over U.S. Patent Application No. 2004/0240856 published December 2, 2004 to Yahata et al. (*Yahata*) in view of U.S. Patent No. 6,778,759 issued August 17, 2004 to Yamada et al. (*Yamada*) and further in view of U.S. Patent 6,341,127 issued January 22, 2002 to Katsube et al. (*Katsube*).

Applicant's dependent claims 2, 3, 4 and 5 stand or fall with Applicant's independent claim 1.

CLAIMS 1, 6 and 7 ARE PATENTABLE

The combination of *Yahata*, *Yamada* and *Katsube* does not yield Applicants' claimed invention.

At page 5 of the Office Action dated August 31, 2009, the Examiner states that the combination of "*Yahata* and *Yamada* fail to teach the indication of stream paths" and the Examiner looks to *Katsube* to provide the missing element. Respectfully, *Katsube* does not yield the missing element.

Katsube describes a label switching system, in which a label (channel identifier) is allocated to specific packet streams. (*Katsube*, col. 1, lns. 19-21.) This allocated label is used to switch packet streams. (*Katsube*, col. 1, lns. 21-32.) In particular, the path through which packets are transferred by this label is called a label switching path (LSP). (*Katsube*, col. 1, lns. 39-42.) In addition, *Katsube* further describes that a security

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function may be maintained by limiting the label switching path (LSP) set up and/or packet streams transferred by the label switching path (LSP). (*Katsube*, col. 2, lns. 35-44.) From this the Examiner simply asserts that it would have been obvious at the time of the invention to include an indication of stream paths simply because users are able to recognize the data of each stream of information.

However, the Examiner's application of *Katsube* to Applicants' claimed invention is, respectfully, wrong for a number of reasons. First, a label switching path simply defines the switching path through a network – and <u>has nothing to do with stream path type</u>. As stated in *Katsube*, the label switching path <u>identifies the path</u> through which packets are transferred. (*Katsube*, col. 1, lns. 39-41.) Thus, <u>nowhere</u> does *Katsube* describe, or suggest, that a label switching path has anything to do with the stream path type. Second, limiting the label switching path (LSP) by taking into account source/destination addresses as described in *Katsube* also – <u>has nothing to do with stream path type</u> – these are merely the source and destination addresses. Finally, the Examiner seems to treat the phrase "stream path" and "stream path type" as equivalents. This is simply improper. They are different phrases and the Examiner is not free to ignore a word of Applicants' claims. Applicants' independent claims 1, 6 and 7 require a "stream path type" – not just a "stream path".

In view of the above, the Examiner's assertion that a label switching path (LSP) is not different from a stream path type indication is simply wrong. As noted above, a stream path type <u>has nothing to do</u> with a label switching path (LSP) that <u>specifies the switching path</u> as described in *Katsube*. As such, since the stream path type <u>has nothing to do</u> with the switching path as described in *Katsube*, the Examiner has no basis for now extending a label switching path to be identical to stream path type.

Indeed, the fact is that the Examiner is reading more into *Katsube* then is actually described. Simply put, nowhere does *Katsube* even describe the use of stream path type for anything in switching packet streams. As such, the Examiner's reliance on the KSR rule is misplaced since the Examiner is mistakenly extending the use of a label switching path (LSP) to now represent stream path type – yet, <u>nowhere</u>, does *Katsube* describe, or suggest, such an application of a label switching path (LSP).

Thus, the combination of *Yahata*, *Yamada* and *Katsube* does not yield Applicants' claimed invention. In particular, Applicants' independent claims 1, 6 and 7 all require (emphasis added):

> indicating the stream path <u>type</u> of each of said sub stream paths; where the stream path type is one of:
>> a video stream path <u>type</u>,
>>
>> an audio stream path <u>type</u>,
>>
>> a subtitle stream path <u>type</u>, and
>>
>> a graphics stream path <u>type</u>.

Again, *Katsube* is related to a node device and a method for controlling a label switching path (LSP) set up in interconnected networks that utilize a label switching scheme. (*Katsube*, col. 1, lns. 9-11.) According to *Katsube*, labels are specific channel identifiers allocated to specific packet streams such that packet switching in a node can be carried out according to correspondences among stored label values. (*Katsube*, col. 1ns. 19-26.) Thus, labels as disclosed by *Katsube* refer to transmission paths in a network. The *Katsube* label switching paths (LSPs) are <u>completely different</u> from a stream path type indication, as required by Applicants' independent claims 1, 6 and 7, which indicate type of content, i.e., video, audio, subtitles or graphics, of the data stream to which descriptors of a sub stream path point.

In this regard, both *Yamada* and *Yahata* are related to recording information on a recording medium. In contrast, *Katsube* describes using a label switching path (LSP) for switching information. Therefore, the Examiner's combination yields something different from what is required by Applicants' independent claims 1, 6 and 7.

Finally, Applicants again maintain that *Yamada* is "ill-suited" or fails to suggest the following requirements of Applicants' independent claims 1 and 6:

> "binding at least one data stream which is originating from an external data source to said basic stream path by pointing at said data stream by descriptors of the corresponding sub stream path".

In this regard, the Examiner appears to only repeat that *Yamada* teaches that a title set is construed of a plurality of titles sharing the AV data with each other and ignores the fact that a "video data file includes AV data of all scenes constructing the title set. (*Yamada*, col. 6, ln. 66 to col. 7, ln. 9; col. 7, lns. 39-41.) However, since the AV data is included in a single video file, sharing of said AV data by a plurality of titles cannot suggest Applicant's claimed,

"binding at least one data stream which is originating from an external data source".

In other words, while *Yamada* describes that a single data stream may be referenced by several titles – that <u>is quite different</u> from the Applicants' claimed invention which requires that a single navigation file reference several data streams.

In view of the above, Applicants' claims 1, 6 and 7 are patentable over *Yahata* in view of *Yamada* and further in view of *Katsube*. As such, dependent claims 2, 3, 4 and 5 are also patentable over these cited references.

VIII. CONCLUSION

For the above reasons, Applicant submits that claims 1-7 are patentable. It is therefore respectfully requested that

- the rejection of claims 1, 6 and 7 under 35 U.S.C. §103(a); and

- the rejection of dependent claims 2, 3, 4 and 5 under 35 U.S.C. §103(a);

all be reversed.

Respectfully submitted
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IX.   CLAIMS APPENDIX

1. (Previously presented) Method for arranging data streams containing video, audio and/or other data, comprising:

defining a basic stream path of consecutive descriptors pointing to parts of a basic AV MPEG-2 transport stream of multiplexed elementary streams, wherein said descriptors define the arrangement in time for playing back said parts of said basic AV MPEG-2 transport stream;

defining multiple sub stream paths of consecutive descriptors existing in parallel to said basic stream path, said sub stream paths of descriptors pointing to parts of data streams being located out of said basic AV MPEG-2 transport stream, wherein each of said sub stream paths is one of:

a video stream path type,

an audio stream path type,

a subtitle stream path type, and

a graphics stream path type;

indicating the stream path type of each of said sub stream paths; and

binding at least one data stream which is originating from an external data source to said basic AV MPEG-2 transport stream by pointing at said data stream by descriptors of the corresponding sub stream path.

2. (Original) Method according to claim 1, wherein said basic AV MPEG-2 transport stream is pre-recorded on a read-only disc and said at least one data stream bound to said basic AV MPEG-2 transport stream is provided via internet.

3. (Previously presented) Method according to claim 1, wherein said descriptors define the synchronization of parts of said data streams concerning their relative relation in time by defining the start time and end time of the separate parts of data streams.

4. (Previously presented) Method according to claim 1, wherein said descriptors define the synchronization of parts of data streams concerning their switching by defining

points in time and in the binary stream were the decoding of a part of a data stream can be substituted by decoding a part of another data stream.

5. (Previously presented) Method according to claim 1, wherein the format of a data stream bound to said basic AV MPEG-2 transport stream is an MPEG-2 transport stream of multiplexed elementary streams.

6. (Previously presented) Apparatus for arranging data streams containing video, audio and/or other data, comprising:

means for defining a basic stream path of consecutive descriptors pointing to parts of a basic AV MPEG-2 transport stream of multiplexed elementary streams, wherein said descriptors define the arrangement in time for playing back said parts of said basic AV MPEG-2 transport stream;

means for defining multiple sub stream paths of consecutive descriptors existing in parallel to said basic stream path, said sub stream paths of descriptors pointing to parts of data streams being located out of said basic AV MPEG-2 transport stream, wherein each of said sub stream paths is one of:

a video stream path type,

an audio stream path type,

a subtitle stream path type, and

a graphics stream path type;

means for indicating the stream path type of each of said sub stream paths; and

means for binding at least one data stream which is originating from an external data source to said basic AV MPEG-2 transport stream by pointing at said data stream by descriptors of the corresponding sub stream path.

7. (Previously presented) Pre-recorded storage medium containing video, audio and/or other data, comprising:

a basic AV MPEG-2 transport stream of multiplexed elementary streams;

a basic stream path of consecutive descriptors pointing to parts of said basic AV MPEG-2 transport stream, wherein said descriptors define the arrangement in time for playing back said parts of said basic AV MPEG-2 transport stream;

multiple sub stream paths of consecutive descriptors existing in parallel to said basic stream path, said sub stream paths of descriptors pointing to parts of data streams which are located out of the basic AV MPEG-2 transport stream on an external data source, wherein each of said sub stream paths is one of:

a video stream path type,

an audio stream path type,

a subtitle stream path type, and

a graphics stream path type; and

an indication of the stream path type of each of said sub stream paths.

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X.   EVIDENCE APPENDIX (NONE)

None.

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XI.   RELATED PROCEEDINGS APPENDIX (NONE)

None.